



General

Guideline Title

Final recommendation statement: depression in adults: screening.

Bibliographic Source(s)

Final recommendation statement: depression in adults: screening. [internet]. Rockville (MD): U.S. Preventive Services Task Force (USPSTF); 2016 Jan [8 p]. [34 references]

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: U.S. Preventive Services Task Force. Screening for depression in adults: U.S. Preventive Services Task Force recommendation statement. *Ann Intern Med*. 2009;151(11):784-792. [23 references]

This guideline meets NGC's 2013 (revised) inclusion criteria.

Recommendations

Major Recommendations

The U.S. Preventive Services Task Force (USPSTF) grades its recommendations (A, B, C, D, or I) and identifies the Levels of Certainty regarding Net Benefit (High, Moderate, and Low). The definitions of these grades can be found at the end of the "Major Recommendations" field.

Summary of Recommendations and Evidence

The USPSTF recommends screening for depression in the general adult population, including pregnant and postpartum women. Screening should be implemented with adequate systems in place to ensure accurate diagnosis, effective treatment, and appropriate follow-up. (B recommendation)

Clinical Considerations

Patient Population Under Consideration

This recommendation applies to adults 18 years and older (see Figure 2 in the original guideline document). It does not apply to children and adolescents, who are addressed in a separate USPSTF recommendation statement (see the National Guideline Clearinghouse [NGC] summary of the USPSTF guideline [Screening for depression in children and adolescents: U.S. Preventive Services Task Force](#)

[recommendation statement](#)).

Assessment of Risk

The USPSTF recommends screening in all adults regardless of risk factors. However, a number of factors are associated with an increased risk of depression. Among general adult populations, prevalence rates vary by sex, age, race/ethnicity, education, marital status, geographic location, and employment status. Women, young and middle-aged adults, and nonwhite persons have higher rates of depression than their counterparts, as do persons who are undereducated, previously married, or unemployed. Other groups who are at increased risk of developing depression include persons with chronic illnesses (e.g., cancer or cardiovascular disease), other mental health disorders (including substance misuse), or a family history of psychiatric disorders.

Among older adults, risk factors for depression include disability and poor health status related to medical illness, complicated grief, chronic sleep disturbance, loneliness, and a history of depression. However, the presence or absence of risk factors alone cannot distinguish patients with depression from those without depression.

Risk factors for depression during pregnancy and postpartum include poor self-esteem, child-care stress, prenatal anxiety, life stress, decreased social support, single/unpartnered relationship status, history of depression, difficult infant temperament, previous postpartum depression, lower socioeconomic status, and unintended pregnancy.

Screening Tests

Commonly used depression screening instruments include the Patient Health Questionnaire (PHQ) in various forms and the Hospital Anxiety and Depression Scales in adults, the Geriatric Depression Scale in older adults, and the Edinburgh Postnatal Depression Scale (EPDS) in postpartum and pregnant women. All positive screening results should lead to additional assessment that considers severity of depression and comorbid psychological problems (e.g., anxiety, panic attacks, or substance abuse), alternate diagnoses, and medical conditions.

Screening Timing and Interval

There is little evidence regarding the optimal timing for screening. The optimum interval for screening for depression is also unknown; more evidence for all populations is needed to identify ideal screening intervals. A pragmatic approach in the absence of data might include screening all adults who have not been screened previously and using clinical judgment in consideration of risk factors, comorbid conditions, and life events to determine if additional screening of high-risk patients is warranted.

Treatment

Effective treatment of depression in adults generally includes antidepressants or specific psychotherapy approaches (e.g., cognitive behavioral therapy [CBT] or brief psychosocial counseling), alone or in combination. Given the potential harms to the fetus and newborn child from certain pharmacologic agents, clinicians are encouraged to consider CBT or other evidence-based counseling interventions when managing depression in pregnant or breastfeeding women.

Other Approaches to Prevention

The Community Preventive Services Task Force, which makes evidence-based recommendations on preventive services for community populations, recommends collaborative care for the management of depressive disorders as part of a multicomponent, health care system-level intervention that uses case managers to link primary care providers, patients, and mental health specialists. More information about the Community Preventive Services Task Force and its recommendations on depression interventions is available on its Web site (<http://www.thecommunityguide.org>).

Useful Resources

The USPSTF has made recommendations on screening for depression in children and adolescents (see the

NGC summary of the USPSTF guideline [Screening for depression in children and adolescents: U.S. Preventive Services Task Force recommendation statement](#)) and screening for suicide risk in adolescents, adults, and older adults (see the NGC summary of the USPSTF guideline [Screening for suicide risk in adolescents, adults, and older adults in primary care: U.S. Preventive Services Task Force recommendation statement](#)).

The Substance Abuse and Mental Health Services Administration maintains a national registry of evidence-based programs and practices for substance abuse and mental health interventions (<http://nrepp.samhsa.gov/>) that may be helpful for clinicians looking for models of how to implement depression screening.

Definitions

What the U.S. Preventive Services Task Force (USPSTF) Grades Mean and Suggestions for Practice

Grade	Grade Definitions	Suggestions for Practice
A	The USPSTF recommends the service. There is high certainty that the net benefit is substantial.	Offer/provide this service.
B	The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.	Offer/provide this service.
C	The USPSTF recommends selectively offering or providing this service to individual patients based on professional judgment and patient preferences. There is at least moderate certainty that the net benefit is small.	Offer/provide this service for selected patients depending on individual circumstances.
D	The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.	Discourage the use of this service.
I Statement	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality or conflicting, and the balance of benefits and harms cannot be determined.	Read the "Clinical Considerations" section of the USPSTF Recommendation Statement (see the "Major Recommendations" field). If offered, patients should understand the uncertainty about the balance of benefits and harms.

USPSTF Levels of Certainty Regarding Net Benefit

Definition: The USPSTF defines certainty as "likelihood that the USPSTF assessment of the net benefit of a preventive service is correct." The net benefit is defined as benefit minus harm of the preventive service as implemented in a general, primary care population. The USPSTF assigns a certainty level based on the nature of the overall evidence available to assess the net benefit of a preventive service.

Level of Certainty	Description
High	The available evidence usually includes consistent results from well-designed, well-conducted studies in representative primary care populations. These studies assess the effects of the preventive service on health outcomes. This conclusion is therefore unlikely to be strongly affected by the results of future studies.
Moderate	The available evidence is sufficient to determine the effects of the preventive service on health outcomes, but confidence in the estimate is constrained by factors such as: <ul style="list-style-type: none"> The number, size, or quality of individual studies Inconsistency of findings across individual studies Limited generalizability of findings to routine primary care practice Lack of coherence in the chain of evidence

Level of Certainty	Description
Low	<p>As more information becomes available, the magnitude or direction of the observed effect could change, and this change may be large enough to alter the conclusion.</p> <p>The available evidence is insufficient to assess effects on health outcomes. Evidence is insufficient because of:</p> <ul style="list-style-type: none"> The limited number or size of studies Important flaws in study design or methods Inconsistency of findings across individual studies Gaps in the chain of evidence Findings not generalizable to routine primary care practice A lack of information on important health outcomes <p>More information may allow an estimation of effects on health outcomes.</p>

Clinical Algorithm(s)

None available

Scope

Disease/Condition(s)

Depression

Guideline Category

Prevention

Screening

Clinical Specialty

Family Practice

Obstetrics and Gynecology

Preventive Medicine

Psychiatry

Psychology

Intended Users

Advanced Practice Nurses

Nurses

Physician Assistants

Physicians

Psychologists/Non-physician Behavioral Health Clinicians

Guideline Objective(s)

To update the 2009 U.S. Preventive Services Task Force (USPSTF) recommendation on screening for depression in adults

Target Population

Adults 18 years or older

Note: The guideline does not apply to children and adolescents, who are addressed in a separate U.S. Preventive Services Task Force (USPSTF) recommendation statement.

Interventions and Practices Considered

Screening for depression

Major Outcomes Considered

Pregnant and Postpartum Women

Key Question 1: Do primary care depression screening programs in pregnant and postpartum women result in improved health outcomes (decreased depressive symptomatology; decreased suicide deaths, attempts, or ideation; improved functioning; improved quality of life; or improved health status)?

Does sending depression screening test results to providers (with or without additional care management supports) result in improved health outcomes?

Does the effect of screening vary by population characteristics*?

Key Question 2: What is the test performance of the most commonly used primary care depression screening instruments in pregnant and postpartum women?

Do the test performance characteristics of the screening instruments vary by population characteristics*?

Key Question 3: What are the harms associated with primary care depression screening programs in pregnant and postpartum women?

Do the harms vary by population characteristics*?

Key Question 4: Does treatment (psychotherapy, antidepressants, or collaborative care) result in improved health outcomes (decreased depressive symptomatology; decreased suicide deaths, attempts, or ideation; improved functioning; improved quality of life; or improved health status) in pregnant and postpartum women who screen positive for depression in primary care?

Do the effects of the interventions vary by population characteristics*?

Key Question 5: What are the harms of treatment in pregnant and postpartum women who screen positive for depression in primary care?

Do the harms vary by population characteristics*?

What is the prevalence of other selected serious harms of treatment with antidepressants in the general (i.e., not limited to primary care) population of pregnant and postpartum women?

General Adult Population, Including Older Adults

Key Question 1: Do primary care depression screening programs in the general adult population, including older adults, result in improved health outcomes (decreased depressive symptomatology; decreased suicide deaths, attempts, or ideation; improved functioning; improved quality of life; or improved health status)?

Does sending depression screening test results to providers (with or without additional care management supports) result in improved health outcomes?

Does the effect of screening vary by population characteristics*?

Key Question 2: What are the harms associated with primary care depression screening programs in the general adult population, including older adults?

Do the harms vary by population characteristics*?

*Population characteristics include sex, age, race/ethnicity, comorbid conditions, and new-onset depression versus recurrent depression.

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

Note from the National Guideline Clearinghouse (NGC): An evidence synthesis was prepared by the Kaiser Permanente Research Affiliates Evidence-based Practice Center (EPC) for use by the U.S. Preventive Services Task Force (USPSTF) (see the "Availability of Companion Documents" field).

Data Sources and Searches

The investigators conducted an initial search for existing synthesized literature and guidelines related to depression screening and treatment in MEDLINE/PubMed, the Database of Abstracts of Reviews of Effects, the Cochrane Database of Systematic Reviews, BMJ Clinical Evidence, the Institute of Medicine, the National Institute for Health and Clinical Excellence, PsycINFO, the Agency for Healthcare Research and Quality (AHRQ), the American Psychiatric Association, the American Psychological Association, the Campbell Collaboration, the Canadian Agency for Drugs and Technologies in Health, the National Health Services' Health Technology Assessment Programme, and the Centre for Reviews and Dissemination from 2008 through October 3, 2013. The search strategies are listed in Appendix B in the evidence synthesis.

For pregnant and postpartum women, the investigators systematically evaluated all relevant reviews through abstract and full-text review, and identified existing systematic reviews to use as foundational reviews for benefits and harms of screening and treatment, based on the approach outlined by Whitlock and colleagues. They identified three good-quality reviews that served as foundational reviews. The investigators chose these reviews based on relevance (i.e., inclusion and exclusion criteria that were at least as inclusive as their review), having conducted a good-quality search, having reported good-quality article evaluation methods, and recency. For the question of harms of antidepressants (key question 5), the foundational review was of sufficient quality and the evidence base was so extensive that the investigators used this review directly as evidence in their report and did not reevaluate individual studies included in this review. They used the other two foundational reviews as the starting point for study identification for other key questions related to pregnant and postpartum women, and then searched for additional original research published after the search windows of these foundational reviews. The investigators evaluated all studies included in each of these foundational reviews against the a priori inclusion/exclusion criteria. Then they searched for newly published literature bridging from these foundational reviews. For general adult populations, the investigators evaluated all included studies in the previous USPSTF review in addition to searching for newly published literature.

The investigators searched for newly published literature in the following databases: MEDLINE/PubMed, PsycINFO, and the Cochrane Central Register of Controlled Trials through January 20, 2015 (see Appendix B in the evidence synthesis). In general adult populations, they searched from January 1, 2009, bridging from the previous USPSTF review. The investigators began the bridge search for pregnant and postpartum women from January 1, 2012, since there was at least one foundational review with a search period for each key question for pregnant and postpartum women that extended into 2012. They also reviewed reference lists of relevant studies and reviews to identify additional potentially relevant studies that were

not identified by the literature searches or foundational reviews. The investigators managed literature search results using the bibliographic management software program Reference Manager®, version 12.0 (Thomson Reuters, New York, NY).

Study Selection

Two investigators independently reviewed titles and abstracts using an online platform (Abstrackr) against prespecified inclusion and exclusion criteria (see Appendix B Tables 1 and 2 in the evidence synthesis). Full-text articles were reviewed by two investigators for a final inclusion/exclusion decision. Disagreements were resolved through discussion or consultation with the other investigators. A list of excluded studies after full-text review, including the reasons for exclusion, is available in Appendix C in the evidence synthesis.

The investigators included fair- and good-quality studies published in the English language that were conducted among adults age 18 years and older living in countries ranked as having "very high" human development according to the World Health Organization (WHO), including:

- Randomized, controlled trials (RCTs) and nonrandomized, controlled clinical trials (CCTs) examining benefits or harms of screening or treatment (psychotherapy, pharmacotherapy, or collaborative care) in pregnant and postpartum women
- Studies of diagnostic accuracy of the Patient Health Questionnaire (PHQ) or Edinburgh Postnatal Depression Scale (EPDS) in pregnant and postpartum women
- Systematic reviews, RCTs, CCTs, or large comparative observational studies that examined harms of antidepressants in pregnant or postpartum women
- RCTs and CCTs examining benefits or harms of screening in general or older adult populations

The investigators defined postpartum women as those whose babies were younger than age 1 year at study enrollment. They required that studies assessing the benefits and harms of screening for either population be conducted in a primary care setting, including obstetrics/gynecology or pediatrics for postpartum depression screening. Studies limited to persons with other medical or mental health conditions were excluded; however, the investigators did not exclude studies that included some persons with such conditions, as long as it was not a requirement of participation. They did not exclude screening studies that included participants who already had a chart diagnosis of depression or were being treated for depression. Studies of depression screening could also include additional treatment elements, as long as the screening test results were given to the primary care provider. The investigators required that the control group participants either were not screened or did not have their screening test results sent to their provider.

Studies of psychotherapy (examined only for pregnant and postpartum women) could additionally take place in virtual (i.e., online or computer-based) or mental health clinic settings. The investigators required that studies of depression treatment use population-based screening to identify eligible patients. They considered studies to include population-based screening if they attempted to recruit all or a consecutive or random subset of women in a specific setting or population during the study's recruitment window, with individual outreach to potential participants for depression screening as part of determination of study eligibility. Thus, the investigators excluded studies in which recruitment was based on referral, from populations of patients with known or likely depression (e.g., persons identified as having depression in their medical charts), or from volunteers recruited through media or other advertising. Control groups in treatment studies could include usual care, no intervention, waitlist, attention control, or a minimal intervention (e.g., ≤15 minutes of information, not intended to be a therapeutic dose). The investigators excluded comparative effectiveness studies.

The investigators excluded trials exploring the efficacy of complementary and alternative therapies, such as yoga, exercise, transcranial stimulation, and dietary supplements such as St. John's wort, since they are not widely used in primary care settings. They also excluded trials focused on second-line treatments for severe depression when first-line treatments are not effective, such as polypharmacy and electroconvulsive therapy.

The investigators required minimum follow-up of 6 weeks for studies of benefits or screening and treatment, and harms of psychotherapy or collaborative care interventions. They had no minimum follow-up for harms of antidepressants.

For diagnostic accuracy studies (examined only for pregnant and postpartum women), the time between the index and reference tests could not exceed 2 weeks on average. In addition, these studies must have had patients covering a wide spectrum of symptom severity, comparable to what would occur in typical primary care settings, including those without symptoms, those with subclinical symptomatology, and those with diagnostic-level symptomatology (i.e., case-control designs were excluded). A valid reference standard was a structured or semistructured diagnostic interview with a trained interviewer or a nonbrief (>5 minutes) unstructured interview with a mental health clinician. Studies that only gave the reference test to a subset of participants had to make appropriate adjustments to their analysis or provide sufficient data to allow us to adjust the analysis. Studies had to report sensitivity, specificity, positive predictive value (PPV) or negative predictive value (NPV), or the raw data to allow us to calculate diagnostic accuracy.

The investigators included a variety of study designs in examination of harms of antidepressants in pregnant and postpartum women. Their primary data source was one of the foundational reviews that included extensive information on harms of antidepressant treatment. The investigators focused on serious maternal or fetal/infant harms. Maternal harms included suicidality, serotonin syndrome, cardiac effects, seizures (bupropion only), bleeding, cardiometabolic effects, and preeclampsia. Infant harms included neonatal death, major malformations, small for gestational age/low birth weight, cardiopulmonary effects, and other serious events requiring medical attention. Comparative cohort studies had to be large (minimum of 10 cases in each exposure group) and include appropriate control group participants who were not taking antidepressants.

Number of Source Documents

The investigators screened 6,536 abstracts and identified 71 included studies that reported results in 91 publications. For pregnant and postpartum women, they included six trials addressing the benefits or harms of screening, 26 diagnostic accuracy studies, and 32 studies that assessed the benefits or harms of treatment. This final group included one recent systematic review on the harms of antidepressants. In general and older adults, the investigators included nine trials that addressed the benefits or harms of screening.

See Appendix B Figures 1 and 2 in the evidence synthesis (see the "Availability of Companion Documents" field) for flow diagrams of the literature search for pregnant/postpartum women and the general adult population, including older adults.

Pregnant and Postpartum Women

Key Question 1: 8 articles (6 studies)

Key Question 2: 32 articles (26 studies)

Key Question 3: 1 article (1 study)

Key Question 4: 22 articles (18 studies)

Key Question 5: 15 articles (13 studies + 1 systematic evidence review [SER])

General Adult Population, Including Older Adults

Key Question 1: 17 articles (9 studies)

Key Question 2: 5 articles (2 studies)

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Two investigators independently assessed the quality of the included studies by using criteria defined by the U.S. Preventive Services Task Force (USPSTF) and supplemented with criteria from the Quality Assessment of Diagnostic Accuracy 2 (QUADAS-2) for diagnostic accuracy studies, the Newcastle-Ottawa Scale (NOS) for observational studies, and A Measurement Tool to Assess Systematic Reviews (AMSTAR) for systematic reviews. Each study was assigned a final quality rating of good, fair, or poor. See the "Description of the Methods Used to Analyze the Evidence" field for further information.

Methods Used to Analyze the Evidence

Meta-Analysis

Review of Published Meta-Analyses

Systematic Review with Evidence Tables

Description of the Methods Used to Analyze the Evidence

Note from the National Guideline Clearinghouse (NGC): An evidence synthesis was prepared by the Kaiser Permanente Research Affiliates Evidence-based Practice Center (EPC) for use by the U.S. Preventive Services Task Force (USPSTF) (see the "Availability of Companion Documents" field).

Quality Assessment and Data Abstraction

Two investigators independently assessed the quality of included studies using criteria defined by the USPSTF and supplemented it with criteria from the Quality Assessment of Diagnostic Accuracy 2 and the Newcastle-Ottawa Scale for diagnostic accuracy and observational studies, respectively (see Appendix B Table 3 in the evidence synthesis). They also used the Assessment of Multiple Systematic Reviews (AMSTAR) to assess the quality of the foundational evidence review used for harms of antidepressant treatment in pregnant and postpartum women. Each study was assigned a final quality rating of good, fair, or poor and disagreements were resolved through discussion.

The investigators excluded studies rated as poor quality (i.e., attrition >40%, differential attrition of >20%, other "fatal flaws," or the cumulative effects of multiple minor flaws and/or missing important information significant enough to limit the confidence in the validity of the results). Good-quality studies included all or most of the following: adequate randomization procedures, allocation concealment, blinding of outcome assessors, reliable outcome measures, comparable groups at baseline (with specified eligibility criteria), low attrition, acceptable statistical methods, and adequate and faithful adherence to the intervention. They rated studies as fair quality if they did not meet most of the good-quality criteria.

One investigator abstracted data from all included studies into a Microsoft Access® database (Microsoft Corporation, Redmond, WA) and a second investigator checked the data for accuracy. The investigators abstracted study design characteristics, population demographics, baseline history of depression and other mental health conditions, screening and intervention details (if applicable), depression outcomes, other health outcomes (e.g., suicidality, mortality, quality of life, functioning, health status, child/infant outcomes, emergency department visits, or inpatient stays), adverse events, and diagnostic accuracy outcomes (if applicable).

Data Synthesis and Analysis

The investigators created summary tables for all key questions showing study, population, and intervention characteristics (if applicable) and outcomes for qualitative evidence synthesis. They used these tables and forest plots of results to examine data for consistency, precision, and relationship of effect size with key potential modifiers such as treatment contact time, control group recovery or response, and time to follow-up. The investigators had sufficient data with acceptable comparability

between studies to conduct meta-analysis only for trials examining the benefits of cognitive behavioral therapy (CBT) or related approaches to treat depression in pregnant and postpartum women compared to usual care or other control conditions. The investigators ran a random-effects model using the DerSimonian and Laird pooled estimate, which they felt was acceptable given that the body of evidence for this outcome consisted of 10 studies, with low statistical heterogeneity and fairly comparable sample sizes. Because the number of studies was fairly small, the investigators also ran a sensitivity analysis using a restricted maximum likelihood model with the Knapp-Hartung modification for small samples. They used Stata version 13.1 (StataCorp LP, College Station, TX) for all analyses. When the investigators pooled 10 or more studies, they also examined forest plots and ran Egger's test to examine funnel plot asymmetry, which is an indicator of small study bias, sometimes related to publication bias.

For the studies of instrument accuracy, the investigators calculated sensitivity and specificity with Jeffrey's confidence intervals (CIs), using data from 2x2 tables that included true positives, false positives, false negatives, and true negatives. If these data were not reported directly, they created 2x2 tables based on the total sample size, number of persons with the diagnosis according to the reference standard, sensitivity, and specificity. Several studies only verified a negative screening result in a random sample of participants scoring below a predetermined threshold (which was lower than the typical cutoff for a positive result in all cases). For these studies, the investigators applied the proportion with a depressive disorder according to the reference standard to the full sample of participants scoring below the threshold and calculated sensitivity and specificity based on these extrapolated results. In all cases, there were no false negatives, so sensitivity did not change, but specificity increased with extrapolation. Side-by-side plots of sensitivity and specificity were created in R, version 3.2.2. (The R Foundation, Vienna, Austria).

Methods Used to Formulate the Recommendations

- Balance Sheets
- Expert Consensus

Description of Methods Used to Formulate the Recommendations

The U.S. Preventive Services Task Force (USPSTF) systematically reviews the evidence concerning both the benefits and harms of widespread implementation of a preventive service. It then assesses the certainty of the evidence and the magnitude of the benefits and harms. On the basis of this assessment, the USPSTF assigns a letter grade to each preventive service signifying its recommendation about provision of the service (see Table below). An important, but often challenging, step is determining the balance between benefits and harms to estimate "net benefit" (that is, benefits minus harms).

U.S. Preventive Services Task Force Recommendation Grid*

Certainty of Net Benefit	Magnitude of Net Benefit			
	Substantial	Moderate	Small	Zero/Negative
High	A	B	C	D
Moderate	B	B	C	D
Low	Insufficient			

*A, B, C, D, and I (*Insufficient*) represent the letter grades of recommendation or statement of insufficient evidence assigned by the USPSTF after assessing certainty and magnitude of net benefit of the service (see the "Rating Scheme for the Strength of the Recommendations" field).

The overarching question that the USPSTF seeks to answer for every preventive service is whether evidence suggests that provision of the service would improve health outcomes if implemented in a general primary care population. For screening topics, this standard could be met by a large randomized

controlled trial (RCT) in a representative asymptomatic population with follow-up of all members of both the group "invited for screening" and the group "not invited for screening."

Direct RCT evidence about screening is often unavailable, so the USPSTF considers indirect evidence. To guide its selection of indirect evidence, the Task Force constructs a "chain of evidence" within an analytic framework. For each key question, the body of pertinent literature is critically appraised, focusing on the following 6 questions:

- Do the studies have the appropriate research design to answer the key question(s)?
- To what extent are the existing studies of high quality? (i.e., what is the internal validity?)
- To what extent are the results of the studies generalizable to the general U.S. primary care population and situation? (i.e., what is the external validity?)
- How many studies have been conducted that address the key question(s)? How large are the studies? (i.e., what is the precision of the evidence?)
- How consistent are the results of the studies?
- Are there additional factors that assist the USPSTF in drawing conclusions (e.g., presence or absence of dose–response effects, fit within a biologic model)?

The next step in the USPSTF process is to use the evidence from the key questions to assess whether there would be net benefit if the service were implemented. In 2001, the USPSTF published an article that documented its systematic processes of evidence evaluation and recommendation development. At that time, the USPSTF's overall assessment of evidence was described as good, fair, or poor. The USPSTF realized that this rating seemed to apply only to how well studies were conducted and did not fully capture all of the issues that go into an overall assessment of the evidence about net benefit. To avoid confusion, the USPSTF has changed its terminology. Whereas individual study quality will continue to be characterized as good, fair, or poor, the term *certainty* will now be used to describe the USPSTF's assessment of the overall body of evidence about net benefit of a preventive service and the likelihood that the assessment is correct. Certainty will be determined by considering all 6 questions listed above; the judgment about certainty will be described as high, moderate, or low.

In making its assessment of certainty about net benefit, the evaluation of the evidence from each key question plays a primary role. It is important to note that the USPSTF makes recommendations for real-world medical practice in the United States and must determine to what extent the evidence for each key question—even evidence from screening RCTs or treatment RCTs—can be applied to the general primary care population. Frequently, studies are conducted in highly selected populations under special conditions. The USPSTF must consider differences between the general primary care population and the populations studied in RCTs and make judgments about the likelihood of observing the same effect in actual practice.

It is also important to note that one of the key questions in the analytic framework refers to the potential harms of the preventive service. The USPSTF considers the evidence about the benefits and harms of preventive services separately and equally. Data about harms are often obtained from observational studies because harms observed in RCTs may not be representative of those found in usual practice and because some harms are not completely measured and reported in RCTs.

Putting the body of evidence for all key questions together as a chain, the USPSTF assesses the certainty of net benefit of a preventive service by asking the 6 major questions listed above. The USPSTF would rate a body of convincing evidence about the benefits of a service that, for example, derives from several RCTs of screening in which the estimate of benefits can be generalized to the general primary care population as "high" certainty (see the "Rating Scheme for the Strength of Recommendations" field). The USPSTF would rate a body of evidence that was not clearly applicable to general practice or has other defects in quality, research design, or consistency of studies as "moderate" certainty. Certainty is "low" when, for example, there are gaps in the evidence linking parts of the analytic framework, when evidence to determine the harms of treatment is unavailable, or when evidence about the benefits of treatment is insufficient. Table 4 in the methodology document listed below (see the "Availability of Companion Documents" field) summarizes the current terminology used by the USPSTF to describe the critical

assessment of evidence at all 3 levels: individual studies, key questions, and overall certainty of net benefit of the preventive service.

Sawaya GF, Guirguis-Blake J, LeFevre M, Harris R, Petitti D; U.S. Preventive Services Task Force. Update on the methods of the U.S. Preventive Services Task Force: estimating certainty and magnitude of net benefit. *Ann Intern Med.* 2007;147:871-875. [5 references].

Rating Scheme for the Strength of the Recommendations

What the U.S. Preventive Services Task Force (USPSTF) Grades Mean and Suggestions for Practice

Grade	Grade Definitions	Suggestions for Practice
A	The USPSTF recommends the service. There is high certainty that the net benefit is substantial.	Offer/provide this service.
B	The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.	Offer/provide this service.
C	The USPSTF recommends selectively offering or providing this service to individual patients based on professional judgment and patient preferences. There is at least moderate certainty that the net benefit is small.	Offer/provide this service for selected patients depending on individual circumstances.
D	The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.	Discourage the use of this service.
I Statement	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality or conflicting, and the balance of benefits and harms cannot be determined.	Read the "Clinical Considerations" section of the USPSTF Recommendation Statement (see the "Major Recommendations" field). If offered, patients should understand the uncertainty about the balance of benefits and harms.

USPSTF Levels of Certainty Regarding Net Benefit

Definition: The USPSTF defines certainty as "likelihood that the USPSTF assessment of the net benefit of a preventive service is correct." The net benefit is defined as benefit minus harm of the preventive service as implemented in a general, primary care population. The USPSTF assigns a certainty level based on the nature of the overall evidence available to assess the net benefit of a preventive service.

Level of Certainty	Description
High	The available evidence usually includes consistent results from well-designed, well-conducted studies in representative primary care populations. These studies assess the effects of the preventive service on health outcomes. This conclusion is therefore unlikely to be strongly affected by the results of future studies.
Moderate	<p>The available evidence is sufficient to determine the effects of the preventive service on health outcomes, but confidence in the estimate is constrained by factors such as:</p> <ul style="list-style-type: none">The number, size, or quality of individual studiesInconsistency of findings across individual studiesLimited generalizability of findings to routine primary care practiceLack of coherence in the chain of evidence <p>As more information becomes available, the magnitude or direction of the observed effect could change, and this change may be large enough to alter the conclusion.</p>
Low	The available evidence is insufficient to assess effects on health outcomes. Evidence is

Level of Certainty	insufficient because of: Description
	<p>The limited number or size of studies</p> <p>Important flaws in study design or methods</p> <p>Inconsistency of findings across individual studies</p> <p>Gaps in the chain of evidence</p> <p>Findings not generalizable to routine primary care practice</p> <p>A lack of information on important health outcomes</p> <p>More information may allow an estimation of effects on health outcomes.</p>

Cost Analysis

The U.S. Preventive Services Task Force (USPSTF) does not consider the costs of providing a service in this assessment.

Method of Guideline Validation

Comparison with Guidelines from Other Groups

External Peer Review

Internal Peer Review

Description of Method of Guideline Validation

Peer Review

Before the U.S. Preventive Services Task Force (USPSTF) makes its final determinations about recommendations on a given preventive service, the Evidence-based Practice Center (EPC) and the Agency for Healthcare Research and Quality (AHRQ) send the draft evidence review to 4 to 6 external experts and to Federal agencies and professional and disease-based health organizations with interests in the topic. The experts are asked to examine the review critically for accuracy and completeness and to respond to a series of specific questions about the document. The draft evidence review is also posted on the USPSTF Web site for public comment. After assembling these external review comments and documenting the proposed response to key comments, the topic team presents this information to the USPSTF in memo form. In this way, the USPSTF can consider these external comments before it votes on its recommendations about the service. Draft recommendation statements are then circulated for comment among reviewers representing professional societies, voluntary organizations, and Federal agencies, as well as posted on the USPSTF Web site for public comment. These comments are discussed before the final recommendations are confirmed.

Response to Public Comment

A draft version of this recommendation statement was posted for public comment on the USPSTF Web site from July 28, 2015, to August 24, 2015. A number of comments requested a more detailed definition of what constitutes an "adequate system" for screening. The USPSTF revised the implementation section to clarify that arrangement of staff types, organizational arrangements, and settings can be used to support the goals of depression screening and provided a link to the Substance Abuse and Mental Health Services Administration registry of evidence-based mental health interventions as a resource. Comments suggested that access to depression screening and management resources would be useful. The USPSTF has now provided links to evidence-based depression screening and management toolkits for primary care settings. There were several requests to clarify the potential harms of SSRIs; in response, the USPSTF added information to the Discussion section. Finally, many concerns were expressed about barriers to effectively implementing screening within adequate systems of care; the USPSTF noted this as a research need.

Comparison with Guidelines from Other Groups

Recommendations for screening from the following groups were discussed: the American Academy of Family Physicians, the American Academy of Pediatrics, the American College of Preventive Medicine, the American College of Obstetricians and Gynecologists, the Canadian Task Force on Preventive Health Care, The Institute for Clinical Systems Improvement, and the Community Preventive Services Task Force.

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of evidence supporting the recommendations is not specifically stated.

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

Benefits of Early Detection and Intervention and Treatment

The U.S. Preventive Services Task Force (USPSTF) found adequate evidence that programs combining depression screening with adequate support systems in place improve clinical outcomes (i.e., reduction or remission of depression symptoms) in adults, including pregnant and postpartum women.

The USPSTF found convincing evidence that treatment of adults and older adults with depression identified through screening in primary care settings with antidepressants, psychotherapy, or both decreases clinical morbidity.

The USPSTF also found adequate evidence that treatment with cognitive behavioral therapy (CBT) improves clinical outcomes in pregnant and postpartum women with depression.

Potential Harms

Harms of Early Detection and Intervention and Treatment

The U.S. Preventive Services Task Force (USPSTF) found adequate evidence that the magnitude of harms of screening for depression in adults is small to none.

The USPSTF found adequate evidence that the magnitude of harms of treatment with cognitive behavioral therapy (CBT) in postpartum and pregnant women is small to none.

The USPSTF found that second-generation antidepressants (mostly selective serotonin reuptake inhibitors [SSRIs]) are associated with some harms, such as an increase in suicidal behaviors in adults aged 18 to 29 years and an increased risk of upper gastrointestinal bleeding in adults older than 70 years, with risk increasing with age; however, the magnitude of these risks is, on average, small. The USPSTF found evidence of potential serious fetal harms from pharmacologic treatment of depression in pregnant women, but the likelihood of these serious harms is low. Therefore, the USPSTF concludes that the overall magnitude of harms is small to moderate.

Qualifying Statements

Qualifying Statements

- The U.S. Preventive Services Task Force (USPSTF) makes recommendations about the effectiveness of specific clinical preventive services for patients without obvious related signs or symptoms.
- It bases its recommendations on the evidence of both the benefits and harms of the service and an assessment of the balance. The USPSTF does not consider the costs of providing a service in this assessment.
- The USPSTF recognizes that clinical decisions involve more considerations than evidence alone. Clinicians should understand the evidence but individualize decision making to the specific patient or situation. Similarly, the USPSTF notes that policy and coverage decisions involve considerations in addition to the evidence of clinical benefits and harms.
- Recommendations made by the USPSTF are independent of the U.S. government. They should not be construed as an official position of the Agency for Healthcare Research and Quality (AHRQ) or the U.S. Department of Health and Human Services.

Implementation of the Guideline

Description of Implementation Strategy

The experiences of the first and second U.S. Preventive Services Task Force (USPSTF), as well as that of other evidence-based guideline efforts, have highlighted the importance of identifying effective ways to implement clinical recommendations. Practice guidelines are relatively weak tools for changing clinical practice when used in isolation. To effect change, guidelines must be coupled with strategies to improve their acceptance and feasibility. Such strategies include enlisting the support of local opinion leaders, using reminder systems for clinicians and patients, adopting standing orders, and audit and feedback of information to clinicians about their compliance with recommended practice.

In the case of preventive services guidelines, implementation needs to go beyond traditional dissemination and promotion efforts to recognize the added patient and clinician barriers that affect preventive care. These include clinicians' ambivalence about whether preventive medicine is part of their job, the psychological and practical challenges that patients face in changing behaviors, lack of access to health care or of insurance coverage for preventive services for some patients, competing pressures within the context of shorter office visits, and the lack of organized systems in most practices to ensure the delivery of recommended preventive care.

Dissemination strategies have changed dramatically in this age of electronic information. While recognizing the continuing value of journals and other print formats for dissemination, the USPSTF will make all its products available through its [Web site](#) . The combination of electronic access and extensive material in the public domain should make it easier for a broad audience of users to access USPSTF materials and adapt them for their local needs. Online access to USPSTF products also opens up new possibilities for the appearance of the annual, pocket-size *Guide to Clinical Preventive Services*.

To be successful, approaches for implementing prevention have to be tailored to the local level and deal with the specific barriers at a given site, typically requiring the redesign of systems of care. Such a systems approach to prevention has had notable success in established staff-model health maintenance organizations, by addressing organization of care, emphasizing a philosophy of prevention, and altering the training and incentives for clinicians. Staff-model plans also benefit from integrated information systems that can track the use of needed services and generate automatic reminders aimed at patients and clinicians, some of the most consistently successful interventions. Information systems remain a major challenge for individual clinicians' offices, however, as well as for looser affiliations of practices in network-model managed care and independent practice associations, where data on patient visits, referrals, and test results are not always centralized.

Implementation Tools

Foreign Language Translations

Mobile Device Resources

Patient Resources

Pocket Guide/Reference Cards

Staff Training/Competency Material

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Staying Healthy

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

Bibliographic Source(s)

Final recommendation statement: depression in adults: screening. [internet]. Rockville (MD): U.S. Preventive Services Task Force (USPSTF); 2016 Jan [8 p]. [34 references]

Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2016 Jan

Guideline Developer(s)

U.S. Preventive Services Task Force - Independent Expert Panel

Guideline Developer Comment

The U.S. Preventive Services Task Force (USPSTF) is a federally-appointed panel of independent experts. Conclusions of the USPSTF do not necessarily reflect policy of the U.S. Department of Health and Human Services (DHHS) or its agencies.

Source(s) of Funding

The U.S. Preventive Services Task Force (USPSTF) is an independent, voluntary body. The U.S. Congress mandates that the Agency for Healthcare Research and Quality (AHRQ) support the operations of the USPSTF.

Guideline Committee

U.S. Preventive Services Task Force (USPSTF)

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*Members of the Task Force at the time this recommendation was finalized. For a list of current Task Force members, go to <http://www.uspreventiveservicestaskforce.org/Page/Name/our-members> .

Financial Disclosures/Conflicts of Interest

The U.S. Preventive Services Task Force (USPSTF) has an explicit policy concerning conflict of interest. All members disclose at each meeting if they have a significant financial, professional/business, or intellectual conflict for each topic being discussed. USPSTF members with conflicts may be recused from discussing or voting on recommendations about the topic in question.

Conflict of Interest Disclosures

All authors have completed and submitted the International Committee of Medical Journal Editors (ICMJE) Form for Disclosure of Potential Conflicts of Interest and none were reported. Authors followed the policy regarding conflicts of interest described at

<http://www.uspreventiveservicestaskforce.org/Page/Name/conflict-of-interest-disclosures>

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Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: U.S. Preventive Services Task Force. Screening for depression in adults: U.S. Preventive Services Task Force recommendation statement. *Ann Intern Med*. 2009;151(11):784-792. [23 references]

This guideline meets NGC's 2013 (revised) inclusion criteria.

Guideline Availability

Available from the [U.S. Preventive Services Task Force \(USPSTF\) Web site](#) .

Availability of Companion Documents

The following are available:

Evidence Reviews:

O'Connor E, Rossom RC, Henninger M, Groom HC, Burda BU. Primary care screening for and treatment of depression in pregnant and postpartum women: evidence report and systematic review for the U.S. Preventive Services Task Force. *JAMA*. 2016 Jan 26;315(4):388-406.

O'Connor E, Rosso RC, Henninger M, Groom HC, Burda BU, Henderson JT, Bigler KD, Whitlock EP. Screening for depression in adults: an updated systematic evidence review for the U.S. Preventive Services Task Force. Evidence Synthesis No. 128. AHRQ Publication No. 14-05208-EF-1. Rockville (MD): Agency for Healthcare Research and Quality; 2016 Jan. 306 p.

Available from the [U.S. Preventive Services Task Force \(USPSTF\) Web site](#) .

Background Articles:

Barton MB et al. How to read the new recommendation statement: methods update from the U.S. Preventive Services Task Force. *Ann Intern Med*. 2007;147:123-127.

Guirguis-Blake J et al. Current processes of the U.S. Preventive Services Task Force: refining evidence-based recommendation development. *Ann Intern Med*. 2007;147:117-122.

Sawaya GF et al. Update on the methods of the U.S. Preventive Services Task Force: estimating certainty and magnitude of net benefit. *Ann Intern Med*. 2007;147:871-875.

Available from the [USPSTF Web site](#) .

The following are also available:

Screening for depression in adults: clinical summary. Rockville (MD): U.S. Preventive Services Task Force; 2016 Jan. 1 p. Available from the [USPSTF Web site](#) .

The guide to clinical preventive services, 2014. Recommendations of the U.S. Preventive Services Task Force. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2014. 144 p.

Electronic copies available from the [AHRQ Web site](#) .

The [Electronic Preventive Services Selector \(ePSS\)](#) is an application designed to provide primary care clinicians and health care teams timely decision support regarding appropriate screening, counseling, and preventive services for their patients. It is based on the current, evidence-based recommendations of the USPSTF and can be searched by specific patient characteristics, such as age, sex, and selected behavioral risk factors.

Patient Resources

The following are available:

Screening for depression in adults. Understanding task force recommendations. U.S. Preventive

Services Task Force. Consumer fact sheet. 2016 Jan. 4 p. Available from the [U.S. Preventive Services Task Force \(USPSTF\) Web site](#) .

Screening for depression. Journal of the American Medical Association (JAMA) patient page. 2016 Jan 26;315(4):428.

Myhealthfinder is a tool that provides personalized recommendations for clinical preventive services specific to the user's age, gender, and pregnancy status. It features evidence-based recommendations from the USPSTF and is available at www.healthfinder.gov .

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

NGC Status

This NGC summary was completed by ECRI on June 30, 1998. The information was verified by the guideline developer on December 1, 1998. This summary was updated by ECRI on May 7, 2002. The updated information was verified by the guideline developer as of May 14, 2002. This summary was updated by ECRI Institute on November 2, 2007, following the U.S. Food and Drug Administration advisory on Antidepressant drugs. This summary was updated by ECRI Institute on January 25, 2010. The information was verified by the guideline developer on February 22, 2010. This summary was updated again by ECRI Institute on March 25, 2016. The updated information was verified by the guideline developer on March 31, 2016.

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